

The Reaux publication does not disclose a “liner having a generally non-porous surface formed from a continuously cured elastomer,” as required by pending claim 13. The rejection relies on the disclosure in the Reaux publication of a liner that is “fluid repellent or breathable, allowing passage of water vapor” to show a “liner having a generally non-porous surface formed from a continuously cured elastomer.” Moreover, the rejection states that the liner in the Reaux publication “can repel water and therefore [is] non-porous” (page 2, line 23).

There is simply no evidence in the Reaux publication of the notion that just because a liner is water repellent, the liner is therefore inherently non-porous. There are many textiles and polymeric materials that are water repellent or liquid impermeable, yet porous and vapor permeable. This is due to the fact that water tension will form droplets of water that are too big to pass through the pores of a textile, while air molecules are small enough to pass through those same pores.

Given the intended use of the liner of the Reaux publication as a liner for casts and splints meant to be worn for weeks or months at a time, a non-porous liner would trap perspiration between the skin of the user and the liner, causing discomfort, odors and possibly rashes. This situation would be unacceptable since the liner of the Reaux publication is meant to be used in a cast or splint that will be worn for weeks or months at a time. This is evidence that the liner of the Reaux publication is actually porous, not non-porous as the rejection assumes, in order to wick away the perspiration of the person wearing the cast or splint, or in order to allow air to pass through the liner to keep the user’s skin dry.

In contrast, the liner of claim 13 is not meant to be worn for any extended period of time, but only for a sufficient length of time so that the activatable hardenable compound sets. Since the liner will only be in place for short periods of time, there is no concern for wicking away the wearer’s perspiration or for keeping the wearer’s skin dry.

Additionally, the non-porous structure of the liner of claim 13 allows for smooth surfaced positive molds to be made. If the liner were porous, a texture would be formed on the positive mold and would need to be sanded, ground, or polished off prior to the use of the positive mold.

A further advantage of the non-porous structure of the liner of claim 13 is that it prevents vapors from the curing resin that may irritate the skin from contacting the skin.

Since the liner disclosed in the Reaux publication is porous, the Reaux publication does not disclose every limitation of claims 13-20 and 22.

Withdrawal of this rejection is respectfully requested.

3. Rejection of claims 24 and 25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. publication 2004/0002671 (Reaux)

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness.

A. The Reaux publication fails to disclose every limitation of the claims

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because the Reaux publication does not disclose every limitation of pending claims 24 and 25.

The Reaux publication does not disclose a liner having “a continuously cured silicone elastomeric layer,” as required by pending claim 24. The “continuously cured silicone elastomeric layer” is inherently non-porous. As discussed above in section 2, the liner disclosed in the Reaux publication is porous in order to wick away perspiration from the user, or to keep the user’s skin dry. The rejection also acknowledges that the liner of the Reaux publication does not have a continuously cured silicone elastomeric layer (page 3, lines 16-17).

A *prima facie* case of obviousness cannot stand, since the Reaux publication does not disclose a continuously cured silicone elastomeric layer that is inherently non-porous, as required by claim 24.

**B. There is no suggestion or motivation to combine the cited references**

This rejection is also respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because there is no suggestion or motivation disclosed by the Reaux publication for one of ordinary skill in the art of cast and splint construction to construct a liner having “a continuously cured silicone elastomeric layer,” that is inherently non-porous, as is required by claim 24.

As discussed above in section 2, the liner disclosed in the Reaux publication is porous in order to wick away perspiration from the user, or to keep the user’s skin dry. Because the liner of the Reaux publication is meant to be used in a cast or splint, to be worn for weeks or months at a time, the Reaux publication actually teaches away from providing the liner with a continuously cured silicone elastomeric layer that is inherently non-porous. This is because a non-porous liner used with the casts or splints of the Reaux publication would trap the perspiration of the user, causing discomfort and possibly skin rashes, and trapping odors within the cast or splint.

Accordingly, a *prima facie* case of obviousness cannot stand since there is no suggestion or motivation in the Reaux publication, and in fact the Reaux publication teaches away from providing a liner having “a continuously cured silicone elastomeric layer,” that is inherently non-porous, as is required by claim 24.

**C. There is no reasonable expectation of success**

This rejection is also respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because there is no reasonable expectation of success for replacing the liner of the Reaux publication with a liner having “a continuously cured silicone elastomeric layer,” that is inherently non-porous, as is required by claim 24.

For many of the reasons discussed above, replacing the liner of the Reaux publication with a liner having “a continuously cured silicone elastomeric layer,” that is inherently non-porous, as is required by claim 24, would destroy the function of the liner of the Reaux publication. Because the liner of the Reaux publication is intended to be used with a cast or splint, and is meant to be worn for weeks or months at a time, an inherently non-porous continuously cured silicone elastomeric layer would destroy the requirement that the liner either wick away a user’s perspiration or keep the user’s skin dry. Since there are legitimate health issues, such as skin rashes, that would arise from the use of a non-porous liner there is no reasonable expectation of success in providing an inherently non-porous continuously cured silicone elastomeric layer to the liner of the Reaux publication.

Thus, a *prima facie* case of obviousness cannot stand since there is no reasonable expectation of success for providing a liner having “a continuously cured silicone elastomeric layer,” that is inherently non-porous, as is required by claim 24, in place of the liner of the Reaux publication.

For all of the above reasons, the rejection’s reliance on *In re Leshin*, 125 USPQ 416, (CCPA 1960), is misplaced. Because the selection of a liner having a non-porous “continuously cured silicone elastomeric layer,” as required by claim 24, would destroy the function of the liner of the Reaux publication, it would not have been a material suitable for the intended use of the liner of the Reaux publication. Hence, the selection of a liner having a non-porous “continuously cured silicone elastomeric layer,” as required by claim 24, would not have been a matter of obvious design choice.

Withdrawal of this rejection is respectfully requested.

4. Rejection of claims 13-20 and 22-25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,228,164 (Graf et al.) in view of U.S. publication 2004/0002671 (Reaux)

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness.

A. None of the cited references disclose every limitation of the claims

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because none of the cited references disclose every limitation of pending claims 13-20 and 22-25.

The rejection acknowledges that the Graf et al. patent fails to disclose a liner having a generally non-porous surface formed from a continuously cured elastomer, as required by claim 13 (page 4, line 16). The rejection also acknowledges that the Graf et al. patent fails to disclose a liner having an inherently non-porous layer of continuously cured silicone elastomer, as required by claim 24 (page 5, lines 1-2).

As discussed above in sections 2 and 3, the Reaux publication fails to disclose both a generally non-porous surface formed from a continuously cured elastomer, as required by claim 13, and a liner having an inherently non-porous layer of continuously cured silicone elastomer, as required by claim 24.

Because none of the cited references disclose every limitation of claims 13-20 and 22-25, a *prima facie* case of obviousness cannot stand.

B. There is no suggestion or motivation to combine the cited references

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because there is no suggestion or motivation, for one of ordinary skill in the art of last construction, to combine the cited references in order to construct a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer.

As previously discussed in sections 2 and 3 above, the Reaux publication fails to provide any suggestion or motivation, and in fact actually teaches away from, constructing a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer.

The Graf et al. patent fails to provide any suggestion or motivation to construct a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer. The Graf et al. patent uses a polyester, knit stockinette, which is inherently porous, as a liner to protect the foot and ease removal of the shell (col. 8, line 67; col. 9, lines 1-2). There is a disclosure that other materials can be used for this purpose, but all of the suggested materials are lubricants applied directly to the skin of the wearer (col. 9, lines 2-6).

Nowhere in the Graf et al. patent is there any suggestion to use a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer.

Accordingly, a *prima facie* case of obviousness cannot stand since there is no suggestion or motivation to combine the cited references in order to construct a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer, as is required by pending claims 13 and 24.

C. There is no reasonable expectation of success

This rejection is respectfully traversed on the basis that the rejection fails to establish a *prima facie* case of obviousness because there is no reasonable expectation of success that a combination of the cited references will disclose a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer, as is required by pending claims 13 and 24.

For the reasons discussed above, a combination of the Graf et al. patent and the Reaux publication, will fail to disclose a non-porous liner having a continuously cured elastomeric layer, or a continuously cured silicone elastomeric layer, as is required by pending claims 13 and 24.

Thus, a *prima facie* case of obviousness cannot stand since there is no reasonable expectation that the combination of the of the cited references will successfully disclose a non-porous liner having a continuously cured elastomeric

layer, or a continuously cured silicone elastomeric layer, as is required by pending claims 13 and 25.

Again, the rejection's reliance on *In re Leshin*, 125 USPQ 416, (CCPA 1960), is misplaced. In the case of *In re Leshin*, the prior art was a container made from plastic and the applicant was claiming a different plastic. Here, the liners of the Reaux publication and the Graf et al. patent are not made from any kind of non-porous elastomer. Therefore, it would not have been obvious, in view of *In re Leshin*, to use a non-porous, continuously cured elastomer or silicone, as required by claims 13 and 24, because the prior references do not disclose any kind of non-porous elastomer.

Withdrawal of this rejection is respectfully requested.

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Art Unit: 3728

5. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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